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Attorney's Docket No.: 09765-036001

REMARKS

Claim Objections

The examiner objected to Claims 16-17, 20, 36-37, 40 under 37 C.F.R. 1.75(c), as being of improper dependent form.

Applicant has amended these claims to call for generating additional itineraries ... without considering constraints," as in claim 16. This feature further limits claim 1, since it is an additional feature to the feature recited in the base claim 1. Therefore clearly, claim 16 further limits the base claim. The other claims were similarly amended and thus further limit their respective base claims in an analogous manner.

Claim Rejections - 35 U.S.C. §102

The examiner rejected Claims 1-8, 12, 14-15,17-28, 32, 34-35, 37-46, 51-55, 57-61, 63-73 under 35 U.S.C. 102(b) as being anticipated by Jones et al (2002/0111935).

Before discussing Applicant's claims and the way in which the claims distinguish over the prior art, it may be helpful to the examiner for Applicant to review in a non-limiting manner a discussion involving the so called constraints.

As described by Applicant:

> While a fare may restrict the flights, fares permit other constraints, such as through other parts of its rules (in particular for ATP fares, through rule "categories" 4, 8, 9 and 999 and through a "maximum permitted mileage"). The routing is typically the primary source of a constraint, and a flight combination that satisfies the fare's routing, does not contain excessively long layovers, and has proper seat availability is quite likely to satisfy a fare's rules.
>
> A general process 50 for a flight scheduler 18 in the TPS 10 includes receiving 52 trip segments, and iterating over each trip segment by selecting 53 a trip segment, by retrieving 54a "through fares" on all airlines. The process looks up 54b the routings of each of the through fares that has routings and eliminates duplicate routings 54c. The process iterates 58 over all trip segments and eliminates 56 any duplicate routings.

For each trip segment, for each non-duplicate routing, the process 50 generates 56 some flight combinations that are constrained by the routing, but which otherwise satisfy user defined constraints on query time, origin and destination and so forth. **The process 50 also generates 59 flight combinations that are unconstrained by fare routings based on the original query information for each trip segment. The process 50 sends 60 the determined flight combinations (both constrained and unconstrained) to a faring process 20, in order to price 62 the flight combinations. The process 50 selects and returns 62 answers to the user.**[1]

The process described above and in the remainder of Applicant's specification, considers constraints on sequences of flights between endpoints of a trip, e.g., routings, thus likely resulting in more sets of flight sequences, itineraries, satisfying the fare routing rules.[2] Now turning to Applicant's claims.

<u>Claims 1 and 21</u>

Applicant's claim 1 is patentably distinct over Jones, since Jones neither describes nor suggests at least the features of …. determining constraints on sequences of flights between the endpoints of the trip segments, the constraints derived from properties of fares that can be used with the flights and generating itineraries from flights using the constraints … .

In rejecting claim 1, the examiner stated:

> Jones et al ('935) discloses:
> receiving trip segments, see figure 3 (300);
> determining constraints on sequences of flights between the endpoints of the trip segments, the constraints derived from properties of fares that can be used with the flights, see (302);
>   generating itineraries from flights using the constraints, see (310); and
>   pricing the itineraries, see figure 6 (600).

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[1] Appellant's specification page 7, line 28 to page 8, line 21.

[2] Id. page 14, lines 16-26.

For this routing, if the flight scheduler limits the flights it considers to those that match this set of origin/destination/airline triples, it is guaranteed that any itinerary it generates will be allowed by the fares' routing.

This is not true for all routings. It is possible for some routings that the set of triples generated will permit some routes that the routing does not allow, but in practice this circumstance would be rare. Nevertheless, any valid itinerary will include only flights that match the triples generated by this process.

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The examiner contends that the features of "determining constraints" is disclosed in (302), which is found in FIG. 3 and generating itineraries ... using the constraints is disclosed at (310), which is also found in FIG. 3.

Applicant disagrees. In 302, Jones describes finding desirable (e.g., best or lowest) fares between the input departure city and input arrival city, whereas, in step 310 Jones describes that: "the system builds connections among a plurality of travel segments from the arrival city to the departure city." Nowhere in the cited passages from Jones, nor elsewhere in Jones however does Jones describe or suggest "determining constraints on sequences of flights between the endpoints of the trip segments, the constraints derived from properties of fares that can be used with the flights." At the passages cited by the examiner, Jones determines segments of the trip and finds fares that can be used between the segments. However, Jones does not determine any properties of fares, nor uses constraints derived from those properties in the process of generating itineraries.

Claim 21 is allowable for analogous reasons.

Claims 2-15, 22-35, 42-50, 52-56, and 58-62

Each of claims 2-15, 22-35, 42-50, 52-56, and 58-62 require that the claimed constraints be on a particular feature involved in travel planning. Each of the claims are allowable for reasons discussed in their respective base claims and because the claimed feature of a constraint is neither described nor suggested by the cited reference.

Claim 2

Using claim 2 as just one example, claim 2 requires that "the constraints are on flights." The examiner contends: "Jones et al ('935) further discloses the constraints are on flights, see figure 5 (Flights)."

Figure 5 of Jones does not show constraints on flights. Rather, Figure 5 shows constraints on the user query. In claim 2, the recited constraints are derived from properties of fares that can be used with the flights. Jones simply does not describe deriving anything corresponding to the claimed constraints from properties of the fares useable with the flights.

Claims 14 and 34

Using claim 14 as another example, claim 14 requires that the "constraints are restrictions on flight origin and destination." The examiner contends that: "Jones et al ('935) further discloses the constraints are restrictions on origin and destination, see (0037) and (0043)."

Claim 14 is neither described nor suggested by Jones. Both of these passages from Jones are reproduced below.

> [0037] Relational database 14 is also connected to connect point interface 18. Connect point interface 18 serves to pare down possible connection points between travel segments from those that are merely possible to those that are reasonable. For example, when one is attempting to book a flight from Dallas to Chicago, one may possibly connect on a flight in Cairo, Egypt. However, connect point interface 18 would exclude such an unreasonable connection. Nevertheless, connect point interface 18 would allow a reasonable connection, such as one made in St. Louis, Mo. Those skilled in the art will appreciate that an implementation of connect point interface 18 may be empirically developed using heuristics and experience, and the interface may comprise, for example, a table of city pairs linked by allowable connection points.
>
> [0043] Again with reference to FIG. 2, several other data feeds feed a fare portion 14B of database 14. These other data feeds comprise fare data 222 and rules 224. Fare data feed 222 represents the fares that can be applied to various flights, and rules data feed 224 represents the rules for applying fares to various flights. Routing rules 226 place restrictions on the cities and routes that may be used for planning an itinerary. Finally, flight applicability data 228 qualify the application of certain fares to the various cities and routes. Flight applicability data 228 typically comprise data from travel providers denoting restrictions on applying certain fares to certain flights.

Recalling that base claim 1 requires: "determining constraints on sequences of flights between the endpoints of the trip segments, the constraints derived from properties of fares that can be used with the flights; and generating itineraries from flights using the constraints," Applicant contends that the passages do not suggest: "constraints are restrictions on flight origin and destination," as used in claim 14 when read with claim 1.

This follows because Jones neither at those passages nor elsewhere determines constraints, as claimed. Rather, these passages cited from Jones describe a "Connect point interface 18." However, the connect point interface 18 "serves to pare down possible connection points between travel segments from those that are merely possible to those that are reasonable." These are not constraints derived from "properties of fares that can be used with the flights." Indeed, at that passage, the example that Jones uses, namely: "For example, when one is

attempting to book a flight from Dallas to Chicago, one may possibly connect on a flight in Cairo, Egypt." Exclusion of that connect point is not based on any property of a fare that can be used with a flight, but rather that the connection for a flight through Cairo is an "unreasonable connection."

Similarly, in paragraph [0043], Jones does not determine constraints, as claimed. Rather, Jones describes data feeds, e.g., fare data 222, rules 224, routing rules 226 and applicability data 228. These are all data feeds supplied from, e.g., ATPCO. Indeed, ATPCO may be a source of some of the raw data used by a travel planning system to determine some of the features recited in Applicant's claims, but nothing in these feeds correspond to: "determining constraints on sequences of flights between the endpoints of the trip segments, the constraints derived from properties of fares that can be used with the flights." In addition, does Jones neither describes nor suggests to use any of these feeds to determine the claimed constraints. Therefore, Jones inherently neither describes nor suggests "constraints are restrictions on flight origin and destination."

Claims 16, 17, 20, 36, 37 and 40

Each of claims 16, 17, 20, 36, 37 and 40 require generating additional itineraries without considering constraints. Each of the claims are allowable for reasons discussed in their respective base claims and because the combination of claimed features is neither described nor suggested by the cited reference.

Using claim 16, as an example, claim 16 calls for "... generating additional itineraries from flights without considering constraints."

The examiner contends that: "Jones et al ('935) further discloses pricing of itineraries without considering constraints, see figure 3 (302)."

Applicant generally agrees with this statement. Indeed, at 302 Jones does not consider nor indeed produce "constraints derived from properties of fares that can be used with the flights." Therefore, Jones does price itineraries without considering "constraints derived from properties of fares that can be used with the flights," since Jones does not consider the claimed constraints per se. However, claim 16 depends from claim 1, which also includes the features of

determining constraints ... generating itineraries from flights using the constraints, and pricing the itineraries. It is submitted that Jones 302 cannot be reasonably construed to teach both pricing of itineraries without considering constraints and pricing of itineraries considering constraints.

Therefore, Jones, while clearly describing pricing of itineraries without considering constraints, does not describe the combination of pricing itineraries considering the claimed constraints and pricing of itineraries without considering the claimed constraints, as called for in claim 16.

For the reasons discussed above, Jones does not determining constraints ... generating itineraries from flights using the constraints, and pricing the itineraries. The examiner uses the same elements from Jones to teach both features of pricing of itineraries without considering the claimed constraints and pricing of itineraries by considering the claimed constraints. However, both of these interpretations of Jones cannot be supported by element 302.

Claims 18, 19, 38 and 39 are allowable at least for the reasons discussed in claim 1.

Claims 41, 63 and 68, which require instructions to: "determine constraints on sequences of flights between the endpoints of the trip segments, the constraints derived from properties of fares that can be used with the flights and generate itineraries from flights using the constraints, are neither described nor suggested by Jones for the reasons discussed above in conjunction with claim 1.

Claims dependent on claim 41 or 63 or 68 are allowable at least for the reasons discussed in claim 1 and/or for additional reasons, as discussed in corresponding dependent claims for claim 1.

Claims 51 and 57

Claim 51 further distinguishes over Jones et al ('935) since the reference neither describes nor suggests instructions to: "determine geographic and airline constraints derived from fare rules to control the manner in which flights are combined prior to evaluation of fare rules." The examiner again relies on item (302) from Jones to teach this feature. However, as already discussed, Jones does not derive or determine constraints derived from fares. Therefore, Jones

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fails to determine constraints derived from fare rules and fails to suggest: "determine geographic and airline constraints derived from fare rules," as claimed.

Claim 57 contains analogous limitations and is allowable for analogous reasons.

Claim Rejections - 35 U.S.C. §103

The examiner rejected Claims 9, 13, 29, 33, 47, 50, 56, 62 under 35 U.S.C. 103(a) as being unpatentable over Jones et al (2002/0111935) in view of Tanner (WO 01/59590).

The examiner also rejected Claims 10, 30, 48 under 35 U.S.C. 103(a) as being unpatentable over Jones et al (2002/0111935) in view of official notice.

The examiner also rejected Claims 11, 31, 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al (2002/0111935) in view of the Travel Gazette.

Each of these claims are allowable over any combination of Jones, Tanner, Travel Gazette and official notice, at least because no combination of these claims describes or suggests the features of, e.g., "determining constraints on sequences of flights between the endpoints of the trip segments, the constraints derived from properties of fares that can be used with the flights and generating itineraries from flights using the constraints," as set forth in the base claims.

This Reply is also accompanied by an Information Disclosure Statement. Applicant requests the examiner's consideration of these references. Applicant submits that the claims are patentable over the references on this statement whether taken separately or in combination with the art of record.

It is believed that all the rejections and/or objections raised by the examiner have been addressed.

In view of the foregoing, applicant submits that the application is in condition for allowance and such action is requested at the examiner's earliest convenience.
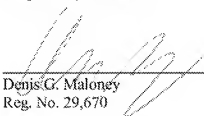
All of the dependent claims are patentable for at least the reasons for which the claims on which they depend are patentable. Canceled claims, if any, have been canceled without prejudice or disclaimer.

Any circumstance in which the applicant has (a) addressed certain comments of the examiner does not mean that the applicant concedes other comments of the examiner, (b) made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims, or (c) amended or canceled a claim does not mean that the applicant concedes any of the examiner's positions with respect to that claim or other claims.

No fee is believed to be due. If a fee is due, please apply that fee and any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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